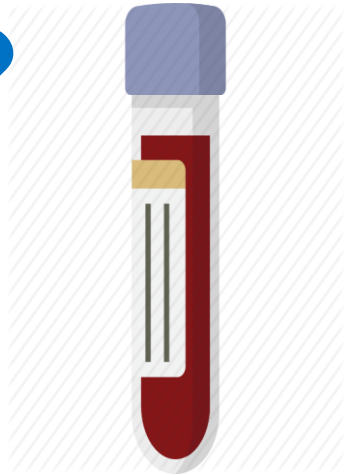
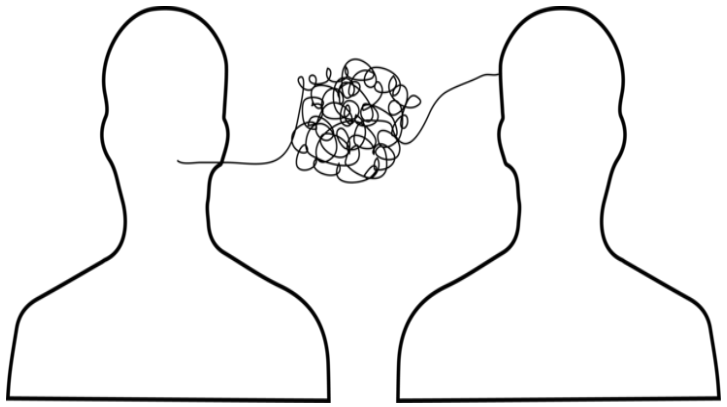
NHS
Blood and Transplant

Empowerment is easy isn't it….?

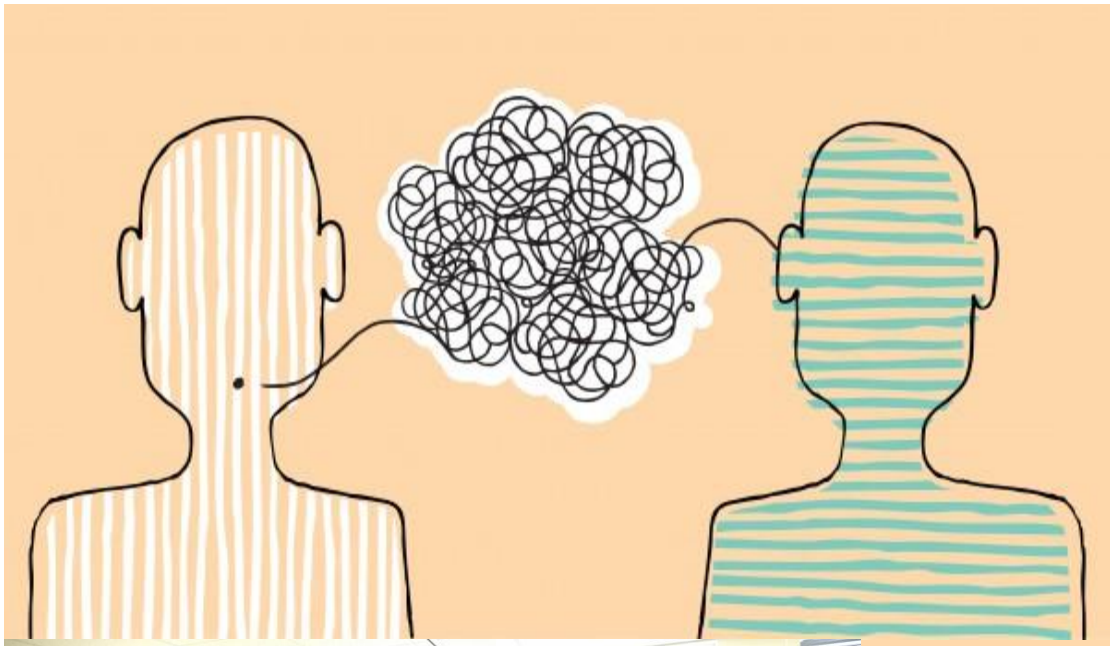




Caring Expert Quality

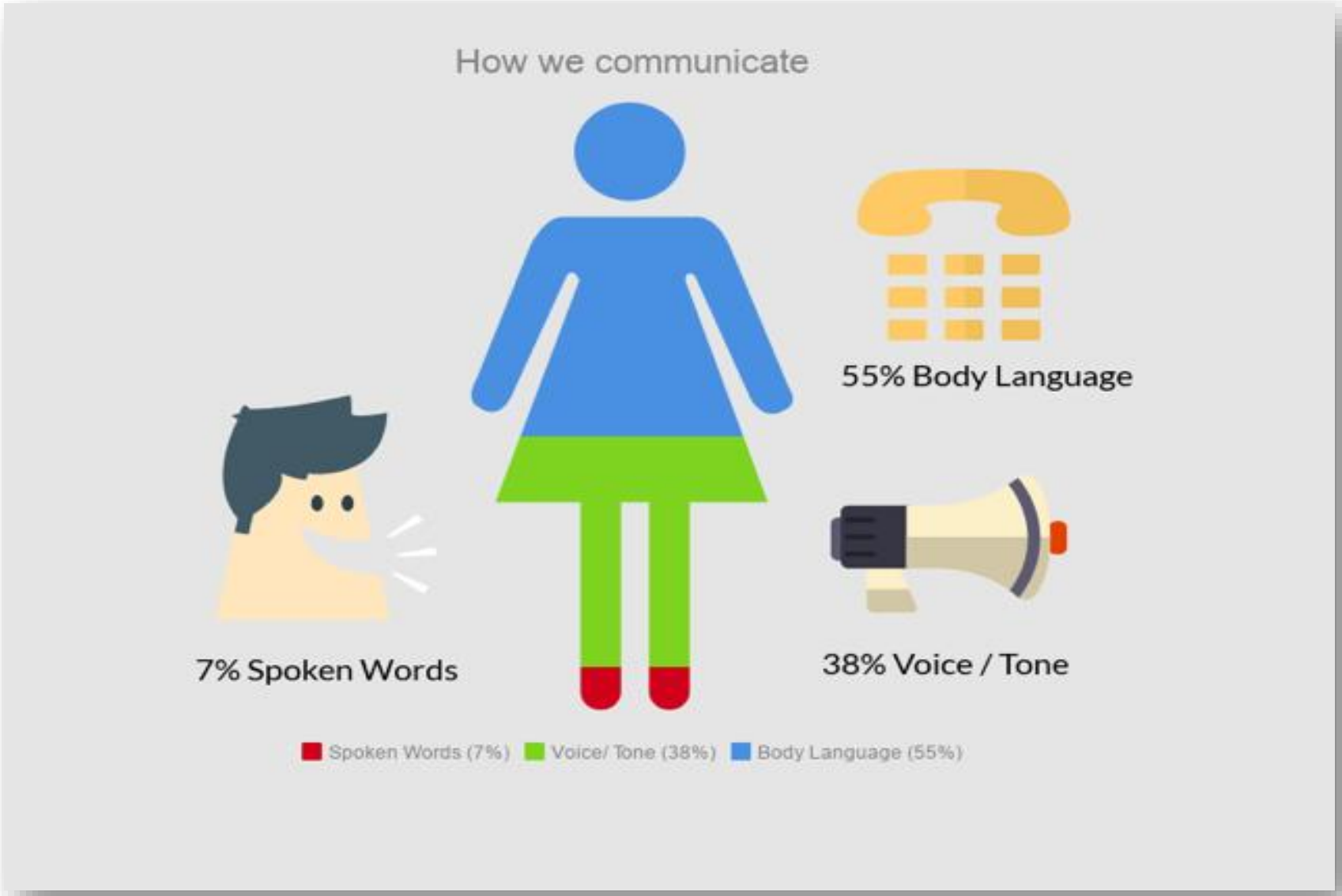
What is the hardest thing?

NHS Blood and Transplant



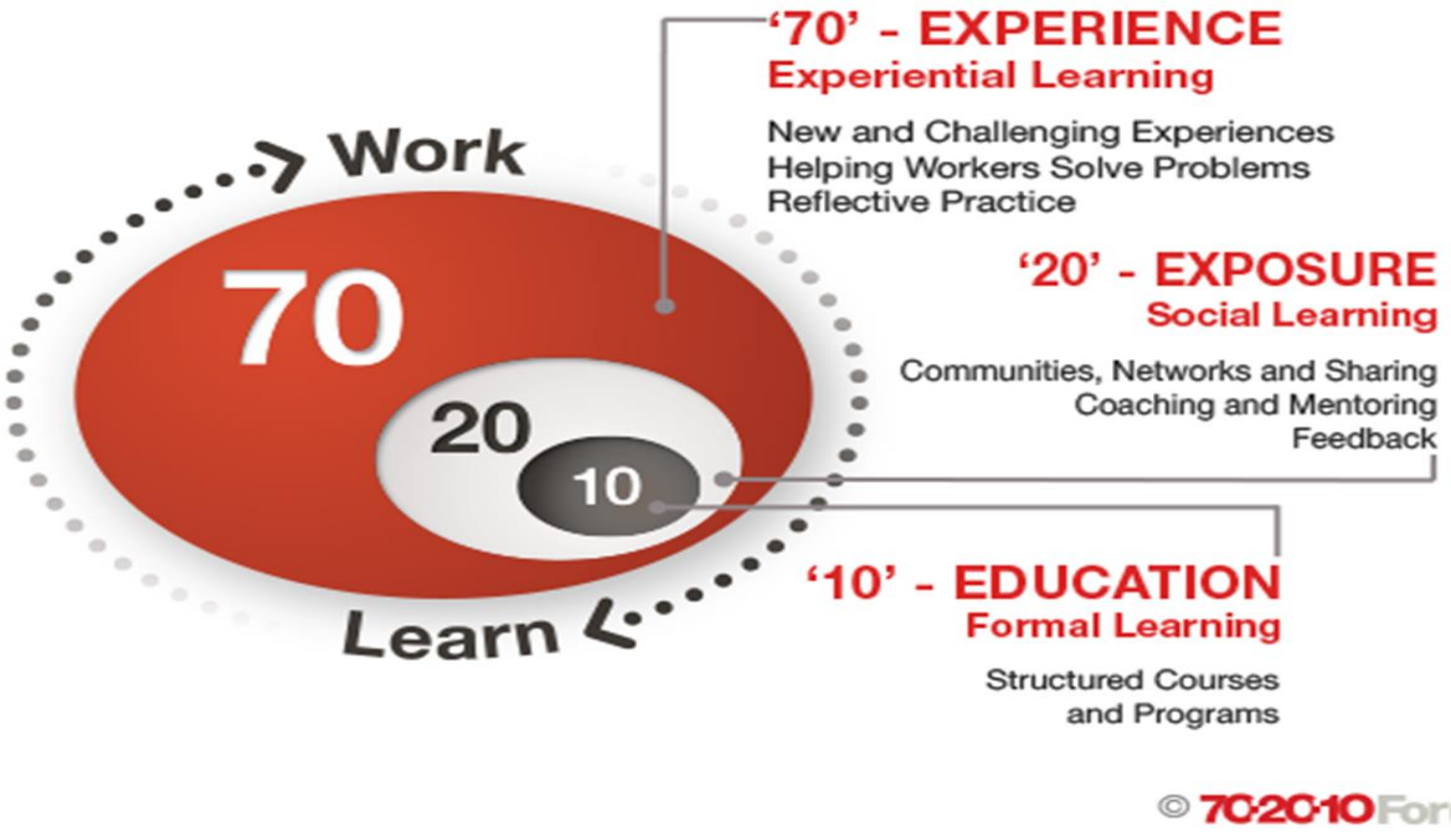
Why does it not work perfectly?

NHS Blood and Transplant



How do we learn?

NHS
Blood and Transplant



‘Trying to understand patient **safety** by only looking at **incidents** is like trying to understand sharks by only looking at shark **attacks**’

Attributed to Bob Wears: Spotted in talk by Adrian Plunkett

1956 – GEORGE A. MILLER

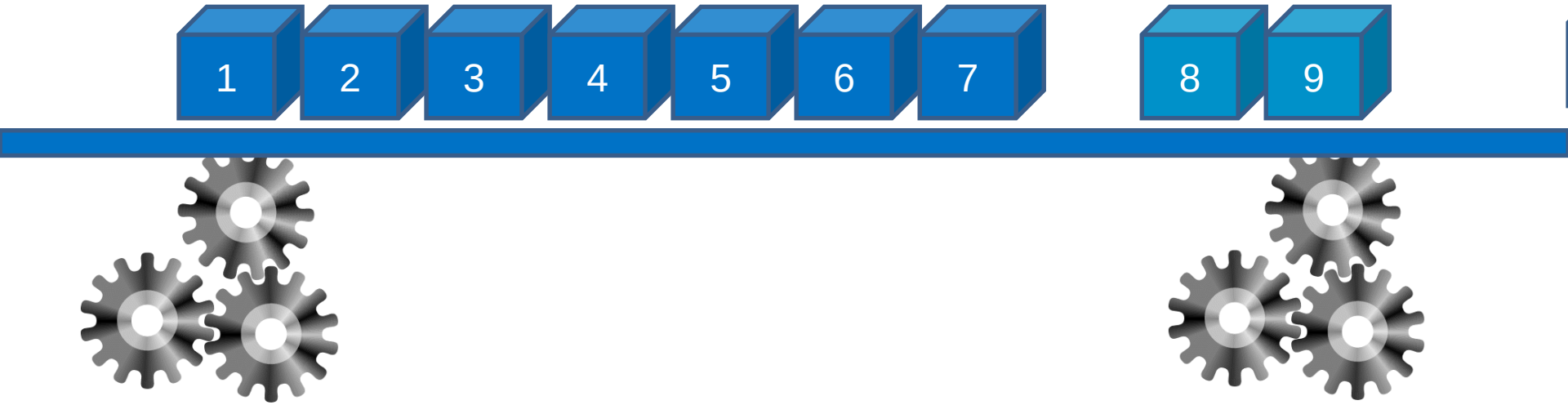
NHS Blood and Transplant

7 ± 2

‘The Magic Number’

We are human, not machines.

We can only deal with so much information at once.



Human Factors: Laboratory and Clinical Staff are very busy

NHS Blood and Transplant

https://youtu.be/vJG698U2Mvo

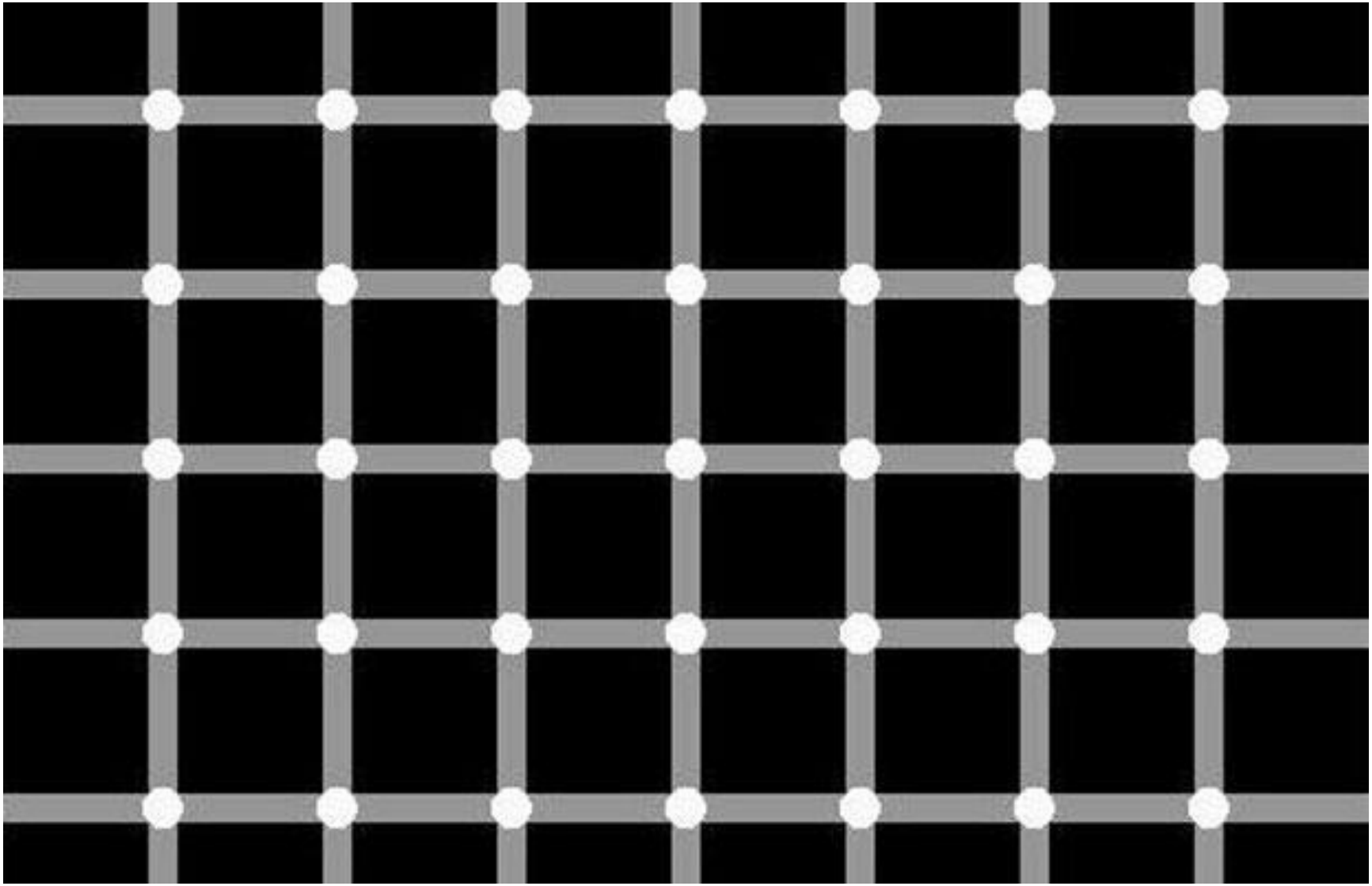
Instructions

Count how many times the players wearing white pass the basketball.

Anyone who gets the right number wins

Are the circles light or dark ?

NHS
Blood and Transplant



What do you see ?

NHS
Blood and Transplant

Two lovers kissing

NHS
Blood and Transplant

Group Work

NHS Blood and Transplant

Get into your 4 Groups: Two groups will do scenario A and Two groups will do scenario B

Major Haemorrhage Scenario

NHS Blood and Transplant

- You are holding the transfusion bleep in the lab and answer the latest call which is from the respiratory ward. The person who picks up the phone sounds stressed, cross and impatient. They say they have been trying to contact the lab for 20 minutes, a male patient on the ward is having a massive GI bleed and if they don't give him blood now he will probably die.

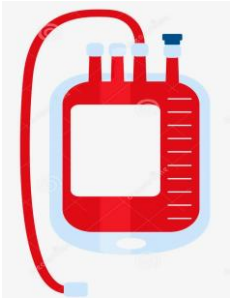
- They want 4 units of red cells straight away.
- The Major Haemorrhage bleep has not gone off.
- The caller says they are going to complete a DATIX because there has been a delay in obtaining blood.

Group A: Lab

NHS
Blood and Transplant

- You are on the night shift as the only BMS on site for Transfusion.
- There is lots of day work left over due to staff shortages.
- You have an ongoing obstetric haemorrhage and a patient in A&E requiring PCC for suspected ICH.
- The bleep has been going constantly and you have been on the phone to labour ward numerous times.
- You only have one analyser as the other one has been down since lunchtime.
- You call back the latest bleep and the person is agitated and stressed and they demand 4 units RBC for the bleeding male patient who may die if they don't get the blood.

1. What was challenging?
2. How could you constructively mange the communication?
3. What strategies could you use to manage the situation?



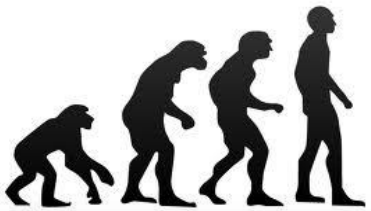
Group B: Clinical

NHS
Blood and Transplant

- The caller was a FY2 Respiratory Dr, who started in the Trust 2 days ago and was on induction today. She was also on the rota to cover the ward that night. She has just rejoined the FY2 rotation after being off for a year on maternity leave.
- The last haemorrhage on the maternity ward was 18 months ago and none of the nurses on the shift were involved then.
- The FY2 DR has tried bleeping the registrar twice, but he is in ED with another really sick patient. She tried bleeping the BT Lab 6 times before she got the call back.
- The patient having the massive GI bleed was admitted with an exacerbation of COPD. He is a very heavy drinker but was not known to have GI problems.
- The patients wife is hysterical, is shouting at the Dr and nurses to do something and saying she will sue them if he dies because of them.

A. What factors in this situation may have influenced how the Dr communicated with the lab and what are the issues?

B. Going forward what might help prevent a scenario like this happening in the future?



Evolution of a protocol

NHS Blood and Transplant

BLOOD TRANSFUSION MAJOR HAEMORRHAGE PROTOCOL

University College London Hospitals NHS Foundation Trust

CONTACT / ASSESS / TREAT

BLOOD TRANSFUSION CONTACT NUMBERS IN MAJOR HAEMORRHAGE

Blood Transfusion Laboratory: Use Trust Emergency Number 2222. State "Fast bleep Blood Transfusion – major haemorrhage" or "Fast bleep 7060 – major haemorrhage" the laboratory will respond immediately.

- *When the Blood Transfusion staff answer state "Major Haemorrhage"*
- *Give patients name, hospital number, ward/ department, your name, bleep number / ext number*
- *Confirm with transfusion lab if group and save sample already held.*

Clinical Advice Haematology SpR: Bleep 7050 or 7000 (In hours). Major Haemorrhage mobile phone (In hours) 07983 463 485. Out of hours contact On-call Haematology SpR via switchboard.

During a major haemorrhage one person should be nominated to liaise with the lab/ Haematology SpR regarding product requirements & availability.

Take samples for: Group & save (if no current sample in lab), full blood count, coagulation screen & fibrinogen.
Send by urgent courier or pneumatic tube to lab (60 Whitfield St.). The Medical Couriers can be contacted on 020 7014 1000 & give ward / dept account number.
Ensure Blood Transfusion laboratory staff know that URGENT samples are en route.

Location of emergency blood
6 units of uncrossmatched O RhD neg & 6 units Rh D pos are available in:

- The theatre blood fridges at UCH, The Heart & NHNN.
- In UCH A&E blood fridge.
- 6 units of uncrossmatched O RhD neg only in Labour ward blood fridge – 1st floor EGA.
- 2 units neonatal O Rh D neg in Labour Ward fridge.

Convert to group specific or fully crossmatched as soon as available.

Assess degree of urgency

- Blood needed immediately → Use uncrossmatched group O*: Bleeding Hb < 5g/dL or 40-50% EBV loss.
- Blood needed 10 – 50 minutes (from receipt of sample) → Use uncrossmatched group specific blood.
- Blood needed > 50mins (from receipt of sample) → Fully compatible blood.

Only the nominated person should liaise with lab regarding availability of products, additional calls by others may delay issue of products. When group specific or fully compatible units are available they will be displayed on the hospital computer system. Blood Transfusion Ext. 8523/ 8522

Anticipate coagulopathy: Ensure the laboratory know exact location for delivery of products e.g. platelets.

- If you anticipate red cell transfusion of 6- 8 units in 1- 2 hours, ANTICIPATE NEED FOR & ORDER BLOOD COMPONENTS EARLY. Empiric treatment may be required in advance of laboratory results being available, especially if ongoing blood loss, evidence of microvascular bleeding.
- FFP & Platelets are likely to be required even if results were normal at baseline.

Platelets
Order 1 unit

- Aim for >100 x 10^9/L if CNS/ multiple trauma.
- Aim for > 75 x 10^9/L if other.
- Availability: Up to 1 hour

FFP
Order 4 units for adult (12-15mls/ Kg)

- Aim for INR < 1.5 x mean control.
- Availability: Allow 30mins to defrost

- Aim for F
- If fibrino (=10unit
- Availabil

IN A MAJOR HAEMORRHAGE THE INTIAL ORDER (AS ABOVE) OF PLATELETS, FFP & CRYOP IMMEDIATELY ON REQUEST WITHOUT REFERRAL TO A HAEMATOLOGIST OR WAITING FOR RES SpR or TRANSFUSION CONSULTANT FOR ONGOING MANAGEMEN

Definition: Loss of > 50% Estimated blood volume (EBV) in 3 hours and/or > 150mls/ minute. (EBV 70
Note: Blood loss is often underestimated. In 70Kg adult: One unit of red cells increases Hb by approx 1g/dL. 500ml loss = 10% loss (a (approx 4-5g/dL fall in Hb). Hb & HCT measurements may not accurately reflect the extent of blood loss in the acutely bleeding

Linked to Major Haemorrhage Protocol: Approved 01/06/2010 Review 01/06/2011. Algorithm Reviewed 01/05/2011

UNCONTROLLED MAJOR HAEMORRHAGE

UCL HOSPITALS

Nominate Contact

Nominate a contact person and phone who will then ring

TELEPHONE 2222
Heart Hospital call 32222

Tell switch

- 'MAJOR HAEMORRHAGE'
- Patient LOCATION
- Contacts NAME and PHONE NUMBER (Number will be used in all communication)

Will

- Request Blood Bank to ring

Talk to Blood Bank

Tell Blood Bank

- Patient details & location
- Degree of urgency
- If you require 'Haemorrhage Pack'
  - 6 red cells
  - 4 FFP
  - 2 Cryo
  - 1 platelets
- If you have used (or intend to use) O neg / O pos

Blood Bank will

- Advise whether G & S held
- Advise how long x-matched blood will take to arrive
- YOU DO NOT NEED TO ORGANISE A COURIER

Take Blood

Take blood samples

- Group & Save
- FBC
- Coagulation screen
- Fibrinogen

ENSURE ALL PATIENT DETAILS ARE CORRECT

Give samples to courier

Consider sending 2nd sample in pneumatic tube

Utilise Haem SpR for advice / Liaison

Linked to Major Haemorrhage Protocol version 2: Reviewed 13/01/2012 next Review 13/01/2014

MAJOR HAEMORRHAGE PROTOCOL

UCL HOSPITALS

Nominate Liaison

Emergency call

Nominate a single person to liaise with Blood Bank & Transfusion SpR, who will:

TELEPHONE 2222
Heart Hospital call 32222

Tell switch

"MAJOR HAEMORRHAGE"

- The patient's exact LOCATION
- Your NAME & PHONE NUMBER

(Liaison's name and phone number will be used for ongoing communication)

Switch will

- Tell Blood Bank & Transfusion SpR to ring you
- Send urgent courier to the patient's location to collect urgent blood samples*

Talk to Blood Bank

Tell Blood Bank

- Provide patient's hospital number, full name, D.O.B. & exact location
- Clinical situation
- Whether you have used (or plan to use) emergency O neg / O pos blood
- Ask for a Major Haemorrhage Pack (with additional pack if needed)

Haemorrhage Pack
• 6 Red Cells
• 4 FFP

+/-

Additional pack (if required)
• 2 Cryoprecipitate
• 1 platelets

More products can be requested at any time

Blood Bank will

- Advise whether valid G & S sample held
- Estimate arrival time for components
- Advise about product requests

* *After Blood Bank has made contact with Liaison, courier will be diverted by the lab staff to collect Haemorrhage Pack(s) if G&S held*

At Haemorrhage site

- Take urgent blood samples
  - Group & Save (if required)
  - FBC
  - Coagulation screen
  - Fibrinogen
- Ensure all patient details are correct on all samples. G&S samples MUST be handwritten
- Ensure emergency courier has access to location of haemorrhage
- Utilise Transfusion SpR for advice / ongoing liaison with the lab

REMOTE ISSUE FRIDGES

- If patient eligible for remote issue, red cells can be issued remotely as required (if current G&S available)
- The lab staff will constantly monitor stock levels
- Group O stock may be used as emergency blood if required

Useful numbers

- Blood Bank ext 78523/ 78522 (Blp 7060 out of hrs)
- Routine Haematology Ext 78961 (Bleep 7060 out of hrs)
- Coagulation Ext 78547 (Bleep 7060 out of hrs)
- Transfusion SpR blp 7050 (Gen Haem SpR out of hrs via switch)

IMMEDIATE BLOOD REQUIRED?

Transfuse emergency uncrossmatched group O blood; stored in all theatre blood fridges, on Labour ward, A&E and Remote Issue fridges.

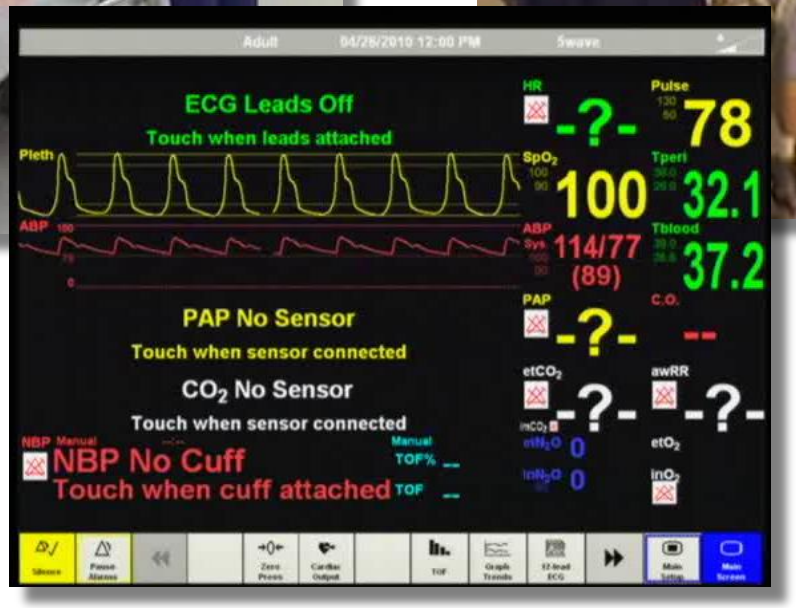
Working together

NHS Blood and Transplant

- Requires a team commitment – e.g. nurses and midwives, medical staff, transfusion laboratory staff, transfusion practitioners. Consider inviting clinical staff to visit the lab.

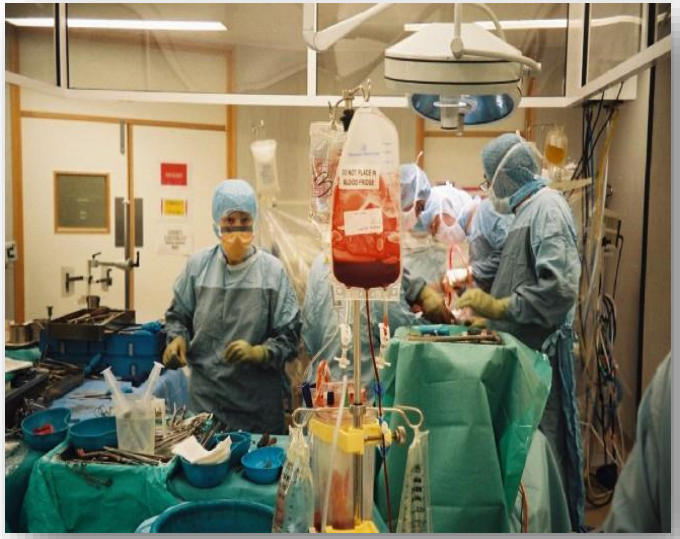
Get involved with SIM training

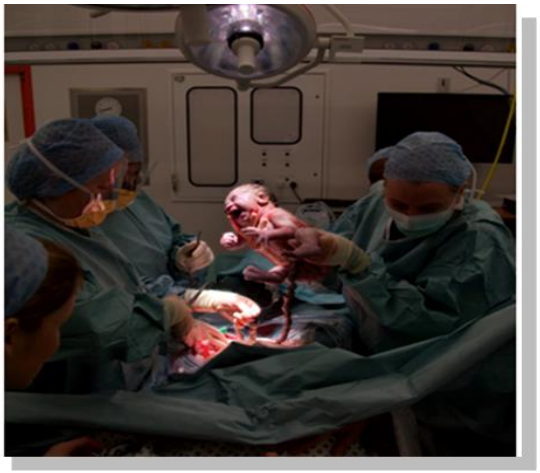
NHS Blood and Transplant



Go and observe practice

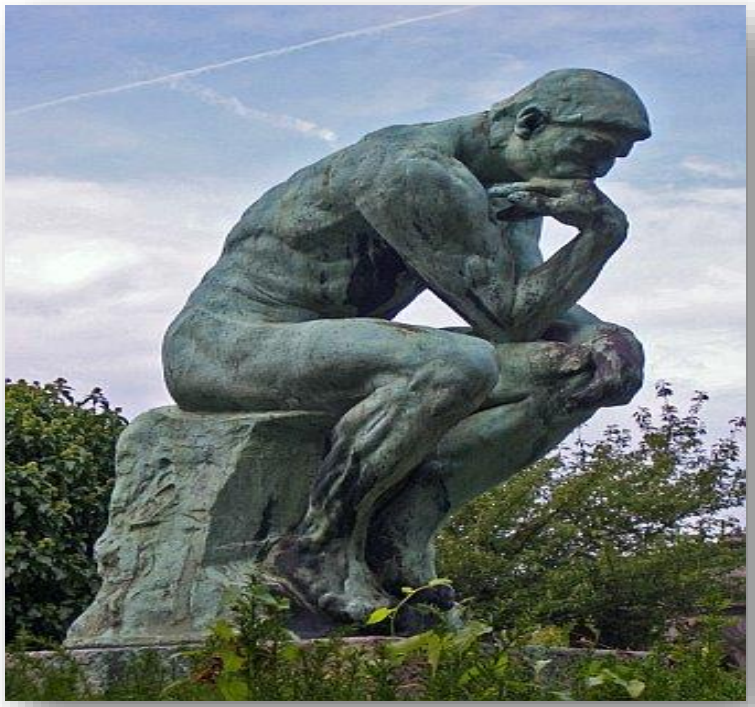
NHS
Blood and Transplant





Reflective Practice

NHS Blood and Transplant

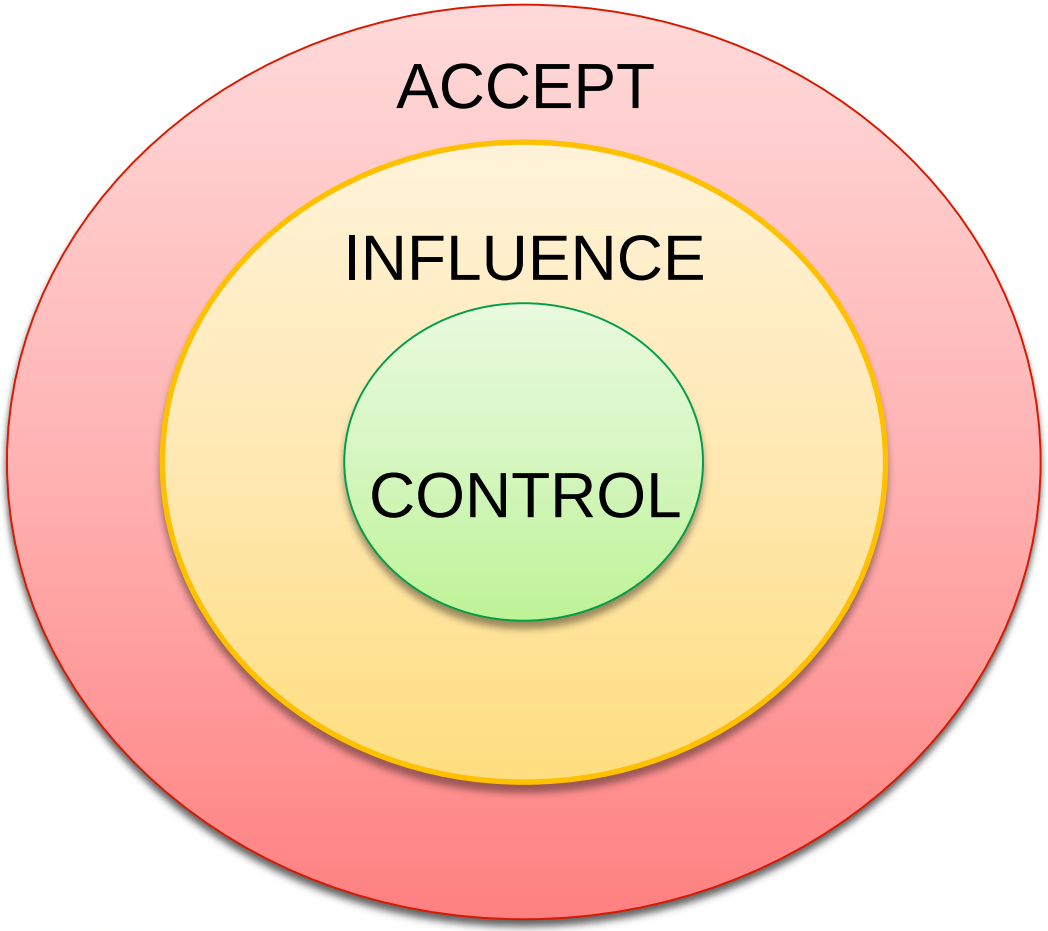


- What was supposed to happen?
- What actually happened?
- Why was there a difference?
- What can we learn from this?

- Incident debrief / AAR
- Action Learning sets
- Schwartz Rounds

Not a magic wand

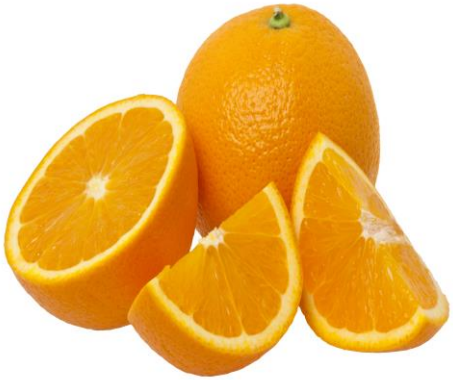
NHS
Blood and Transplant



- **C**ONTROL – change it! (but this can be easier said than done!)
- **I**NFLUENCE – we need to know where, who and how to influence
- **A**CCEPT does not mean “be happy with” but it is a waste of effort to try and change

Change

- For decades, centuries even, people have debated the problem of the slow spread of innovations in health care.
- A classic example is the incorporation of citrus fruit into sailors' diets to prevent scurvy – demonstrated by James Lancaster in 1601 and again by James Lind in 1747, but not adopted by the British navy until 1795 (*Health Foundation, 2018*).
- Change can take a long time; a clinical guideline can take up to 3 years to be fully implemented *(NICE, 2007)*…..



Take home messages

NHS
Blood and Transplant

- *Pass on the Empowerment*
- *Case studies for clinical areas/ lunchtime sessions*
- *After Action Review /Action Learning Set/ Attending Schwartz round (emotional + social elements)*
- *Lab tours for clinicians*
- *Get involved with Sim Training*

- *Go and see an operation, C-section cell salvage, ICU, A&E*
- *Reflection – Self reflection or as part of a team.*
- *Asking for feedback/debrief in big cases*
- *Attend Educational Events (RTC etc.)*
- *Get involved with working groups*
- *Staff conference/ cake sale*

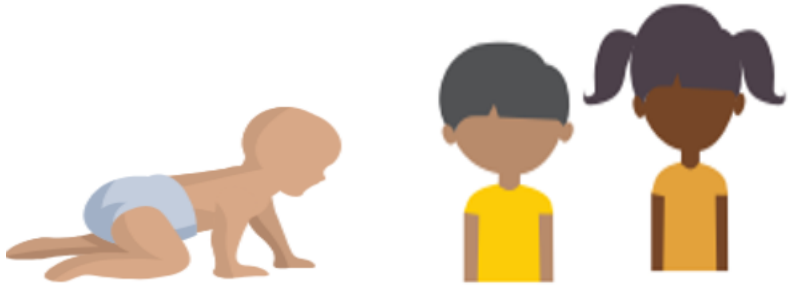
NHS
Blood and Transplant

Thank you for attending our 2018 BMS Educational Event.

If you would like to join our Working Group, please discuss with your manager & let us know.

We hope you have found this day valuable.

Hope you have an excellent weekend.



NHS
Blood and Transplant

- ✓ If completed, please hand in your evaluation form in order to receive your certificate of attendance.
- ✓ Please hand in your name badges for recycling

Thank You

Barriers to change

NHS
Blood and Transplant

- **Awareness and knowledge** - May not be aware of guidance may think it is not relevant, or don't know how to change practice.
- **Motivation** – Competing priorities and commitments may interfere with a team or individuals ability to change practice

- **Acceptance and belief** - Perceptions of the benefits of any proposed change versus the costs, both practical and financial, can be important.

- **Practicalities –** Location of lab, functionality of IT, staffing levels, workload.
- **Barriers beyond your control** – Financial + political environment.

(NICE 2007)